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10/772,436	02/06/2004	Koichi Shibata	018987-055	6119

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EXAMINER
MILIA, MARK R

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/772,436	SHIBATA ET AL.
	Examiner	Art Unit	
	Mark R. Milia	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 November 2010_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-23_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-23_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

11/10/10 has been entered. Currently, claims 1-23 are pending.

Response to Arguments

2.   Applicant's arguments filed 11/10/10 have been fully considered but they are not

persuasive.

The applicant asserts that Mihira (US 2004/0070782) fails to disclose a

combination wherein "the external API program includes a second API for receiving a

third request relating to image processing from an external source, converts the

received third request to a command supported by the first API, and passes the

command as the first request to the control layer, bypassing the one or more application

programs of the application group stored in the application layer," as recited in claims 1

and 13. The Examiner respectfully disagrees as Mihira does disclose such a feature.

Particularly, Mihira states that NIC **69** is an interface device connecting the composite

machine **1** with a communication network such as the Internet and as such a network

apparatus **100** can perform communication with composite machine **1** via the Internet to

communicate with document management service **123** and printing service **130**, both of

which may be provided in the control service layer **9**. Therefore, after a request is

received by external API (NCS **31**) via NIC **69** the network apparatus **100**

communicates directly with control service layer **9** which provides document

management service **123** and printing service **130** thereby bypassing the one or more

application programs (paragraphs 93 and 99).

Claim Rejections - 35 USC § 102

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.   Claims 1-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the

alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication

No. 2004/0070782 to Mihira.

Claims 1, 7, 13, and 18 set forth three different hierarchical architectures for the

hardware resource, a first control program, a second control program, and an

application program. However, Mihira discloses only one hierarchical architecture but

Mihira does state that variations and modifications can be made without departing from

the scope of the invention (paragraph 212) and it is common in the art to rearrange

processing parts without changing the overall function of the system. This is the case

with the instant invention in that Mihira discloses a hierarchical architecture that serves

the same purpose and functions the same as the hierarchical architectures of claims 1,

7, and 13.

Regarding claim 1, Mihira discloses an image processing apparatus comprising:

a hardware resource that includes at least one of an image forming unit, a read unit,

and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and

paragraph 63-64, control service layer **9**), an external API (application program

interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group

including one or more application programs stored in an application layer (see Fig. 1

and paragraph 60, applications **21-24**), wherein the hardware resource, the control

layer, the external API program and the application group are arranged in such a

hierarchical architecture that the control layer is superordinate to the hardware

resource, and the application group including the one or more application programs and

the external API are superordinate to the control layer (see Fig. 1), the control layer

includes a first API for receiving, with use of a predefined function, a first request

relating to image processing from the external API program and a second request

relating to image processing from the one or more application programs, and controls,

on receiving either of the first and second requests, the hardware resource to perform

image processing based on the received request (see paragraphs 59-63, 65, 71, and

89-91, a host computer can request document printing through communication with

document management service **123** which is SF **28** and the control service layer **9**

interprets processing requests sent from the application layer **5**, of which WEB page

application **25**, SOAP communication application **26**, WSF **27**, and SFs **28** are a part of,

thus, the second control program (any of WEB page application **25**, SOAP

communication application **26**, WSF **27**, and SFs **28**) passes received processing

requests to the first control program (any of control service layer **9**) as control service

layer **9** is responsible for management and performance of the hardware resources),

and the external API program includes a second API for receiving, a third request

relating to image processing from an external source, converts the received third

request to a command supported by the first API, and passes the command as the first

request to the control layer, bypassing the one or more application programs of the

application group stored in the application layer (see paragraphs 66-67 and 89-99, NIC

69 is an interface device connecting the composite machine **1** with a communication

network such as the Internet and as such a network apparatus **100** can perform

communication with composite machine **1** via the Internet to communicate with

document management service **123** and printing service **130**, both of which may be

provided in the control service layer **9**. Therefore, after a request is received by external

API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control

service layer **9** which provides document management service **123** and printing service

130 thereby bypassing the one or more application programs), wherein commands,

parameters, and syntax for controlling the hardware resource are released to the public

for incorporation by external users into software supported by the second API (see

paragraphs 61, 85, and 89-93, network apparatus **100** performs communication using

XML with the SOAP **26** which then sends the request to the WSF **27** via API **51** and the

WSF **27** sends the request to SF **28** via API **52** and the SF **28** then sends the necessary

information and appropriate instructions for processing to the corresponding control

service layer **31-38** via API **53** for execution, such as printing of a selected document,

Mihira states that the API's execute through functions previously defined and that

communication between network apparatus **100** and composite machine **1** can take

place via the Internet).

Regarding claim 7, Mihira discloses an image processing apparatus comprising:

a hardware resource that includes at least one of an image forming unit, a read unit,

and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and

paragraph 63-64, control service layer **9**), an external API (application program

interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group

including one or more application programs stored in an application layer (see Fig. 1

and paragraph 60, applications **21-24**), wherein the hardware resource, the control

layer, the external API program and the application group are arranged in such a

hierarchical architecture that the control layer is superordinate to the hardware

resource, and the application group including the one or more application programs and

the external API are superordinate to the control layer (see Fig. 1), the control layer

includes a first API for receiving, with use of a predefined function, a first request

relating to image processing from the external API program, and controls the hardware

resource to perform image processing based on the received first request (see

paragraphs 59-63, 65, and 71), and the external API program includes a second API for

receiving, a second request relating to image processing from an external source and a

third request relating to image processing from the one or more application programs,

converts, on receiving either of the second and third requests, the received request to a

command supported by the first API, and passes the command as the first request to

the control layer, bypassing the one or more application programs of the application

group stored in the application layer (see paragraphs 66-67 and 89-99, NIC **69** is an

interface device connecting the composite machine **1** with a communication network

such as the Internet and as such a network apparatus **100** can perform communication

with composite machine **1** via the Internet to communicate with document management

service **123** and printing service **130**, both of which may be provided in the control

service layer **9**. Therefore, after a request is received by external API (NCS **31**) via NIC

69 the network apparatus **100** communicates directly with control service layer **9** which

provides document management service **123** and printing service **130** thereby

bypassing the one or more application programs), wherein commands, parameters, and

syntax for controlling the hardware resource are released to the public for incorporation

by external users into software supported by the second API (see paragraphs 61, 85,

and 89-93, network apparatus **100** performs communication using XML with the SOAP

26 which then sends the request to the WSF **27** via API **51** and the WSF **27** sends the

request to SF **28** via API **52** and the SF **28** then sends the necessary information and

appropriate instructions for processing to the corresponding control service layer **31-38**

via API **53** for execution, such as printing of a selected document, Mihira states that the

API's execute through functions previously defined and that communication between

network apparatus **100** and composite machine **1** can take place via the Internet).

Regarding claim 13, Mihira discloses an image processing apparatus comprising:

a hardware resource that includes at least one of an image forming unit, a read unit,

and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and

paragraph 63-64, control service layer **9**), an external API (application program

interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group

including one or more application programs stored in an application layer (see Fig. 1

and paragraph 60, applications **21-24**), wherein the control layer is arranged between

the hardware resource and the application group including the one or more application

programs and the external API program is arranged superordinate to the one or more

application programs in the application group in a hierarchical architecture (see Fig. 1),

the control layer includes a first API for receiving, with use of a predefined function, a

first request relating to image processing from the external API program and a second

request relating to image processing from the one or more application programs, and

controls, on receiving either of the first and second requests, the hardware resource to

perform image processing based on the received request (see paragraphs 59-63, 65,

and 71), the external API program includes a second API for receiving a third request

relating to image processing from an external source, converts the received third

request to a command supported by the first API, and passes the command to an

appropriate one of the control layer, and the one or more application programs,

depending on the requested processing, the command passed to the control layer

serving as the first request (see paragraphs 58-63, 65-67, 71, 85, and 89-91, the API is

publicly released because a network apparatus, such as a host computer receives a list

of stored documents and can transmit XML data using a SOAP protocol to perform

printing of a stored document, therefore the API **51** is publicly released prior to the host

computer requesting document printing and thereby allows document printing requests

via document management service **123**, a host computer can request document printing

through communication with document management service **123** which is SF **28** and

the control service layer **9** interprets processing requests sent from the application layer

5, of which WEB page application **25**, SOAP communication application **26**, WSF **27**,

and SFs **28** are a part of, thus, the second control program (any of WEB page

application **25**, SOAP communication application **26**, WSF **27**, and SFs **28**) passes

received processing requests to the first control program (any of control service layer **9**)

as control service layer **9** is responsible for management and performance of the

hardware resources), wherein commands, parameters, and syntax for controlling the

hardware resource are released to the public for incorporation by external users into

software supported by the second API (see paragraphs 61, 85, and 89-93, network

apparatus **100** performs communication using XML with the SOAP **26** which then sends

the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via

API **52** and the SF **28** then sends the necessary information and appropriate

instructions for processing to the corresponding control service layer **31-38** via API **53**

for execution, such as printing of a selected document, Mihira states that the API's

execute through functions previously defined and that communication between network

apparatus **100** and composite machine **1** can take place via the Internet).

Regarding claim 18, Mihira discloses an image processing apparatus comprising:

a hardware resource that includes at least one of an image forming unit, a read unit,

and a display unit (see Fig. 1 and paragraph 58), a control layer (see Fig. 1 and

paragraph 63-64, control service layer **9**), an external API (application program

interface) program (see Fig. 1 and paragraph 66-67, NCS **31**), and an application group

including one or more application programs stored in an application layer (see Fig. 1

and paragraph 60, applications **21-24**), wherein the hardware resource and the

programs are arranged in such a hierarchical architecture that the control layer is

superordinate to the hardware resource, and the one or more application programs and

the external API program are superordinate to the control layer (see Fig. 1), the control

layer includes a first API for receiving a first request relating to image processing from

the external API program and a second request relating to image processing from the

one or more application programs, and controls, on receiving either of the first and

second requests, the hardware resource to perform image processing based on the

received request (see paragraphs 59-63, 65, and 71), and the external API program

includes a second API for receiving, a third request relating to image processing from

an external source, converts the received third request to a command supported by the

first API, and passes the command as the first request to the control layer, bypassing

one or more application programs of the application group stored in the application layer

(see paragraphs 66-67 and 89-99, NIC **69** is an interface device connecting the

composite machine **1** with a communication network such as the Internet and as such a

network apparatus **100** can perform communication with composite machine **1** via the

Internet to communicate with document management service **123** and printing service

130, both of which may be provided in the control service layer **9**. Therefore, after a

request is received by external API (NCS **31**) via NIC **69** the network apparatus **100**

communicates directly with control service layer **9** which provides document

management service **123** and printing service **130** thereby bypassing the one or more

application programs), wherein commands, parameters, and syntax for controlling the

hardware resource are released to the public for incorporation by external users into

software supported by the second API (see paragraphs 61, 85, and 89-93, network

apparatus **100** performs communication using XML with the SOAP **26** which then sends

the request to the WSF **27** via API **51** and the WSF **27** sends the request to SF **28** via

API **52** and the SF **28** then sends the necessary information and appropriate

instructions for processing to the corresponding control service layer **31-38** via API **53**

for execution, such as printing of a selected document, Mihira states that the API's

execute through functions previously defined and that communication between network

apparatus **100** and composite machine **1** can take place via the Internet), wherein the

software is used to control the hardware resource to perform processing that is not

executable by the hardware resource under control of any of the one or more

application programs (see paragraphs 66-67 and 89-99, NIC **69** is an interface device

connecting the composite machine **1** with a communication network such as the Internet

and as such a network apparatus **100** can perform communication with composite

machine **1** via the Internet to communicate with document management service **123**

and printing service **130**, both of which may be provided in the control service layer **9**.

Therefore, after a request is received by external API (NCS **31**) via NIC **69** the network

apparatus **100** communicates directly with control service layer **9** which provides

document management service **123** and printing service **130** thereby bypassing the one

or more application programs).

Regarding claim 2, Mihira further discloses wherein the control layer passes the

received first request to the one or more application programs if the first request is

directed to the one or more application programs (see paragraphs 58-60 and 63).

Regarding claims 3 and 14, Mihira further discloses wherein the third request is

data expressed in an XML (see paragraph 90).

Regarding claims 4, 10, and 15, Mihira further discloses wherein the external API

program further includes: a first converting unit for extracting predetermined information

from the received XML data (see paragraphs 66-67 and 90) and a second converting

unit for converting the extracted information to the command supported by the first API

(see paragraphs 97-99 and 102-103).

Regarding claims 5, 11, and 16, Mihira further discloses wherein upon receiving

a request relating to execution of a print job, the control layer controls the image forming

unit to perform the print job (see paragraphs 97-99 and 102-103).

Regarding claims 6, 12, and 17, Mihira further discloses wherein upon receiving

a request relating to execution of a scan job, the control layer controls the read unit to

perform the scan job (see paragraphs 58-60, 63, 65, 69, 71, and 80).

Regarding claim 8, Mihira further discloses wherein the external API program

passes the received second request to the one or more application programs if the

second request is directed to the one or more application programs (see paragraphs 58-

60 and 63).

Regarding claim 9, Mihira further discloses wherein the second request is data

expressed in an XML (see paragraph 90).

Regarding claim 19, Mihira further discloses wherein the second API is an

external API for controlling operations of the hardware resource according to requests

received from an external device (see paragraphs 62 and 89-90).

Regarding claims 20-23, Mihira further discloses wherein the second API

includes a function callable by the external source, wherein the function calls a plurality

of functions that are predefined by the control layer (see paragraphs 66-67 and 89-99,

NIC **69** is an interface device connecting the composite machine **1** with a

communication network such as the Internet and as such a network apparatus **100** can

perform communication with composite machine **1** via the Internet to communicate with

document management service **123** and printing service **130**, both of which may be

provided in the control service layer **9**. Therefore, after a request is received by external

API (NCS **31**) via NIC **69** the network apparatus **100** communicates directly with control

service layer **9** which provides document management service **123** and printing service

130 thereby bypassing the one or more application programs).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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